

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

525,108

PCT/JP2003/011846



Applicant's or agent's file reference SSK0201-PCT	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/011846	International filing date (day/month/year) 17 September 2003 (17.09.2003)	Priority date (day/month/year) 18 September 2002 (18.09.2002)
International Patent Classification (IPC) or national classification and IPC B01J 13/06, A61K 9/50, 47/36, 47/38, 47/42, 7/00, 35/12, 48/00		
Applicant NAKAJIMA, Mitsutoshi		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising:
 - a. ☒ (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:
 - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
 - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
 - b. ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

4. This report contains indications relating to the following items:

- ☒ Box No. I Basis of the report
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☒ Box No. VIII Certain observations on the international application

Date of submission of the demand 09 April 2004 (09.04.2004)	Date of completion of this report 25 October 2004 (25.10.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/011846

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-10 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* 9-18 received by this Authority on 12 July 2004 (12.07.2004)
- pages* _____ received by this Authority on _____
- ☒ the drawings:
- pages _____ 1-8 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☒ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☒ the claims, Nos. _____ 1-8 _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP03/11846

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.
- ☒ claims Nos. 9-11, 13-18

because:

- ☒ the said international application, or the said claims Nos. 18
relate to the following subject matter which does not require an international preliminary examination (*specify*):

The subject matter of claim 18 relates to a method for treatment of the human body by therapy, which does not require an international preliminary examination in accordance with PCT Article 34 (4)(a)(i) and Rule 67.1(iv).

- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. _____
are so unclear that no meaningful opinion could be formed (*specify*):

- ☐ the claims, or said claims Nos. _____ are so inadequately supported
by the description that no meaningful opinion could be formed.

- ☒ no international search report has been established for said claims Nos. 9-11, 13-18

- ☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the
Administrative Instructions in that:

- | | |
|----------------------------|--|
| the written form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |
| the computer readable form | <input type="checkbox"/> has not been furnished |
| | <input type="checkbox"/> does not comply with the standard |

- ☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with
the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

- ☐ see Supplemental Box for further details.

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	12	YES
	Claims		NO
Inventive step (IS)	Claims	12	YES
	Claims		NO
Industrial applicability (IA)	Claims	12	YES
	Claims		NO

2. Citations and explanations (Rule 70.7)

Documents:

Document 1: "Chitosan Using Microchannels/Production of CM Cellulose Microcapsules," (Nobuhiro Hayada, Satoshi Iwamoto, Shinji Sugiura, Ken Tokuyasu and Mitsutoshi Nakajima), Abstracts of Autumn Conference of the Society of Chemical Engineers, Japan, 18 August, 2002 (18.08.02), Vol. 35, page 828

Document 2: "Chitosan by Microchannels/Production of Carboxymethyl Cellulose Microcapsules," (Satoshi Iwamoto, Nobuhiro Hayada, Shinji Sugiura, Ken Tokuyasu and Mitsutoshi Nakajima), Abstracts of Annual Conference of Japan Society for Food Engineering, 19 July, 2002 (19.07.02), Vol. 3, page 71

Document 3: "Chitosan Using Microchannel Emulsification Method/Production of Carboxymethyl Cellulose Microcapsules," (Nobuhiro Hayada, Satoshi Iwamoto, Shinji Sugiura, Ken Tokuyasu and Mitsutoshi Nakajima), Abstracts of Conference of Japan Society for Bioscience, Biotechnology and Agrochemistry, 5 March, 2002 (05.03.02), Vol. 2002, page 81

Document 4: "Production of Monodisperse Albumin Gel Microcapsules by Microchannel W/O Emulsification Method," (Takahiro Kawakatsu, Naoya Oda, Toshikuni Yonemoto and Mitsutoshi Nakajima), Kagaku-Kogaku-Ronbunshu (= Chemical Engineering Papers), 10 January, 2000 (10.01.00), Vol. 26, No. 1, pages 122-125

Document 5: EP, 301777, A1 (Queen's University at Kingston), 1 February, 1989 (01.02.89)

Explanation:

Claim 12

The subject matter of claim 12 appears to be novel, since it is not disclosed in any of the documents cited in the ISR.

Especially, none of the documents discloses the constitution in which (1) a partition wall is installed at an intermediate position in a first passage in a case in which the first passage and a second passage are formed on both sides of a plate having through holes formed, (2) a polymeric electrolyte solution destined to be a disperse phase is fed into one side of the partition wall and extruded into the second passage through the through holes, to produce an emulsion, and (3) a polymeric electrolyte or polyhydric ion solution reverse in electric charges to the disperse phase is fed into the other side of the partition wall of the first passage and extruded into the second passage through the through holes for forming microcapsules.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

The claims 9-11 and 13-18 added by the amendment dated 12 July, 2004 are not sufficiently supported by the specification.

The applicant insists in the written reply to the effect that claim 9 is based on the description of the specification (page 9, lines 10-24). However, the specification (page 9, lines 10-24) merely describes a suggestion on an emulsion production method different from the emulsion production method using a plate having through holes formed, as can be seen in the description, "A method for forming an emulsion with the particles of a disperse phase made visible in a continuous phase ... can be considered. (Ellipsis) establishing a pool with a large capacity can be considered." No description for particularly explaining the said different method can be seen at other than page 9, lines 10-24 in the specification, and no example or drawing for the said different method is described.

Therefore, claim 9 is not sufficiently supported by the specification. This applies also to claims 10, 11 and 13-18 quoting claim 9.